

DEPARTMENT OF THE ARMY **HEADQUARTERS** U.S. ARMY MANEUVER SUPPORT CENTER AND FORT LEONARD WOOD FORT LEONARD WOOD, MISSOURI 65473-5000

385-5

15 January 2002

Safety RISK MANAGEMENT PROGRAM

Summary. This revision provides for changes to Fort Leonard Wood Regulation 385-5 due to changes in FM 100-14, Risk Management, dated April 1998 and procedures to streamline the process at the user level. Additionally, it provides changes to risk approval authority as established by TRADOC Reg 385-2, dated 27 January 2000. Finally, it provides instruction and examples of daily risk management, deliberate risk management, and specific instructions for the individual risk assessment for leaders.

Applicability. This regulation is applicable to all military (to include Reserves, National Guard, Reserve Officer Training Corps (ROTC), Junior Reserve Officer Training Corps (JROTC) and civilian employees of the U.S. Army.

Form. The prescribed form is available on MANSCEN Safety Office's webpage.

Supplementation. Supplementation of this regulation is prohibited unless specifically approved by Headquarters, United States Army Maneuver Support Center and Fort Leonard Wood (MANSCEN & FLW).

Suggested Improvements. The proponent agency of this regulation is the MANSCEN Safety Office. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to MANSCEN Safety Office, 102 Colorado Ave, Bldg 631, Fort Leonard Wood, MO 65473-8957

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1. Purpose. To provide policy and guidance on the use of Risk Management.

- 2. References.
 - a. Required references.
- (1) AR 385-10, The Army Safety Program, 23 May 1988. Cited in paragraph 15b.
- (2) AR 385-16, System Safety Engineering and Management, May 1990. Cited in paragraphs 6a(3) and 15a.
- (3) TRADOC Reg 385-2, TRADOC Safety Program, 27 January 2000. Cited in Summary and paragraphs 6a(2), 6a(3) and 15a.
- (4) TRADOC Pam 71-9, Requirements Determination, 5 November 1999. Cited in paragraph 6f(3).
- (5) FM 100-14, Risk Management, April 1998. Cited in Summary.
- (6) MIL-STD 882C, System Safety Program Requirements, January 1993. Cited in paragraph 15a.
 - b. Related references.
- (1) FM 3-100.4 Environmental Considerations in Military Operations, June 2000.
 - (2) FM 25-101, Battle Focused Training, September 1990.
- (3) FM 101-5, Staff Organization and Operations, May 1997.
- c. Prescribed form. FLW Form 661 (Risk Management Worksheet (for deliberate and daily risk management)). Prescribed in paragraphs 7a, 7b, 7c, 8a and 8b. This form is available on the MANSCEN Safety Office's webpage.
- Explanation of Acronyms and Brevity Codes. Acronyms and brevity codes used in this regulation are explained in the glossary.
- 4. General. Risk Management is a five-step process which begins in the planning phase of a mission and continues throughout mission execution and ends with the after action review process.
- 5. Risk Management Basic Principles. The five-step process is governed by three basic rules:
- a. Rule 1. Integrate risk management into mission planning, preparedness, and execution.
- b. Rule 2. Make risk decisions at the proper level in the chain of command.
 - c. Rule 3. Accept no unnecessary risks.
- 6. Responsibilities Within the Risk Management Process.
 - a. Commanding General -
- (1) Approves forwarding of EXTREMELY HIGH risk management worksheets forwarded to the United States Army Training and Doctrine Command (TRADOC) Commander for approval.
- (2) Is the approval authority for HIGH risk operations on Fort Leonard Wood, IAW TRADODC Regulation 385-2.

- (3) Is the approval authority for MEDIUM risk System Safety Risk Assessments (SSRA), part III, Recommendations by Combat Developers, IAW AR 385-16 and TRADOC Regulation 385-2.
- b. Commandants will ensure risk management is integrated into all activities and publications of the U.S. Army Chemical, Engineer, and Military Police Schools. Serve as HIGH-risk approval authority for temporary missions when designated in writing as the acting installation commander and for the term of the appointment orders.
 - c. Safety Director will -
- (1) Develop and distribute policy and procedures for application of risk management within MANSCEN.
- (2) Provide risk management train-the-trainer courses to all newly appointed Collateral Duty Safety Officers and noncommissioned officers (NCOs) as well as civilian supervisors and safety representatives.
- (3) Teach Risk Management in the Engineer, Chemical, and Military Police Schools through the Directorate of Common Leader Training.
- (4) Review and analyze risk management for all EXTREMELY HIGH and HIGH-risk operations and training and make recommendations to Commanding General about approval or disapproval. Coordinate all extremely high and high risk operations resulting from environmental related risk with the Directorate of Public Works; Environmental, Energy, and Natural Resources Division.
- (5) Provide oversight of the conduct of the risk management program through inspections and evaluations to include spot checks providing feedback to commanders and leaders.
 - d. Director of Common Leader Training will -
- (1) Ensure risk management instruction is included in each leader development course.
- (2) Staff all training products with a safety concern through the MANSCEN Safety Office for review.
 - e. Director of Training Development will -
- (1) Ensure risk management is performed based on credible scenarios and assign risk assessment code to lesson outlines and plans during Systems Approach to Training (SAT) design and development phases.
- (2) Review risk when lesson outlines or plans are revised or reprinted.
- (3) Staff all training products with a safety concern with the MANSCEN Safety Office for review.
- (4) Forward EXTREMELY HIGH and HIGH-risk lesson outlines and plans, through the Maneuver Support Center Safety Office to Commanding General and TRADOC Commanding General for approval as required.
 - f. Director of Combat Development -
- (1) Is delegated signature authority for TRADOC positions on LOW risks SSRAs for all materiel systems, excluding training devices.
- (2) Develops positions for materiel developer's SSRA for proponent materiel systems, excluding training devices.

- (3) Ensures system safety and environmental issues are integrated into the Combat Development process, IAW TRADOC Pam 71-9.
 - g. Commanders and directors will -
- (1) Ensure integration of risk management into plans and execution of all operations.
- (2) Make risk decisions at the appropriate level IAW paragraph 10 of this regulation.
- (3) Select and enforce control measures for the most severe and probable hazards.
- (4) Evaluate the effects of control measures in reducing risks.
- (5) Determine effectiveness of control measures and make necessary changes to guidance and controls. Ensure these changes are fed back to subordinates as guidance for future missions and standing operating procedures (SOPs).
- (6) Forward HIGH risk managements, through the MANSCEN Safety Office, to the Commanding General for approval. Clearly identify what makes the risk HIGH and actions that are being taken to reduce or eliminate risk.
- (7) Forward EXTREMELY HIGH-risk managements, through the MANSCEN Safety Office, to the Commanding General for recommendation to TRADOC Commander for approval. Clearly identify what makes the risk EXTREMELY HIGH and actions that are being taken to reduce or eliminate risk.
- (8) Ensure that risk management is reviewed prior to the start of training or operations to ensure conditions have not changed. The daily risk management checklist as outlined in paragraph 8b of this regulation is used for this purpose.
 - (9) Include risk information in job description as appropriate.
- (10) Ensure both the training unit and cadre have conducted risk management for the training event. Leaders on the ground will work together to resolve any contrast between the two managements. Conflicts over risk management; the training unit commander will decide hazards or stopping training.
- h. Unit S3s and the Directorate of Plans, Training and Mobilization will -
- (1) Develop input for commander's risk management policy and guidance.
- (2) Coordinate risk management for each course of action in the decision making process and provide these to subordinate units as necessary.
- (3) Ensure risk management is integrated into all operations and plans.
- (4) Include risk management in the military decision making process (MDMP).
- i. Unit Additional Duty Safety Officer/NCO and Civilian Employee Collateral Duty Safety Representative -
- (1) Assist unit personnel in the conduct of risk management.
 - (2) Conduct training in the practice of risk management.
- (3) Review risk management applications for lessons learned and improvements.

- j. Service Detachments will ensure -
 - (1) Joint training is conducted IAW this regulation.
- (2) That for service specific training or operations the detachment commander allows use of service program, except for training in the Chemical Defense Training Facility (CDTF).
- k. The Director, CDTF is responsible for implementation of the System Safety Engineering and Management Plan for the CDTF.
 - I. All Staff Sections will -
- (1) Ensure procedures and standards are clear and practical for each specified and implied task.
- (2) Apply risk management to the MDMP. Develop and implement controls for the commander that support the mission and protect the force from unnecessary risks and loss of combat power.
- (3) Conduct risk management for civilian operations as well as military operations. A good example is a motor pool where risk must be identified and control.
 - m. Leaders/Supervisors will -
 - (1) Enforce performance to standard.
- (2) Execute and enforce control measures selected by commander.
 - (3) Provide feedback on the effectiveness of controls.
 - n. Unit Environmental Compliance Officers (ECOs) will -
 - (1) Conduct training on environmental risk.
- (2) Assist unit safety officer and personnel in the conduct of environmental related risk management.
 - o. Individuals will -
- (1) Understand and implement risk management control measures as directed by the chain of command.
- (2) Report the effectiveness of control measures during after action reviews.
- 7. Execution. The five steps of risk management are -
- a. Step 1 Identify hazards during the earliest planning phases of an operation. Determine the mission essential tasks required to accomplish the mission and list the hazards that have been identified on FLW Form 661(Risk Management Worksheet (for deliberate and daily risk management)). The areas of mission, enemy, terrain and weather, troops time available, civilians (METT-TC) may prove helpful.
- b. Step 2 Assess Hazards to determine risk by identifying the level of risk involved in each task. This compares the probability of an accident occurrence and the severity of the result if it occurs. Annotate the risk on the FLW Form 661.
- c. Step 3 Develop Controls & Make Risk Decisions by eliminating hazards and obtaining appropriate approval. A control measure is developed for each hazard and is listed on the FLW Form 661. After control measures have been identified make a second determination of risk and this becomes the residual risk. The highest residual risk for an operation is the overall risk. The appropriate individual then accepts risk.

- d. Step 4 Implement Controls by integrating them into the appropriate paragraphs of the operation order, overlays, and execution directives. Implement control measures during mission execution
- e. Step 5 Supervise and Evaluate: Evaluate the effectiveness of the control measures. Eliminate, modify and/or adjust control measures as necessary to meet changing situations.
- 8. Types of Risk Management. The types of risk management are: the deliberate, daily, next accident assessment for leaders, and the next accident assessment for individuals.
- a. Deliberate risk management is used early in the planning stages of a mission. It is continually reviewed and changed as the mission planning evolves. Completion of FLW Form 661 is required for the documentation of risk assessment. A completed example is at appendix A. Individuals approving risk must be presently assigned to position with approval authority or new approval must be obtained.
- b. **Daily Risk Management.** The Risk Management process and FLW Form 661 must be reviewed and updated periodically. This review and update is done to identify for the user any changes in the risk level or control measures. Appendix B is an example of how to use the FLW Form 661 for a daily update.
- c. Appendix C has the Next Accident Assessment for Leaders. This is a risk management worksheet that can help leaders identify risk factors that can be an accurate predictor of accident probability.
- d. Appendix D has the Next Accident Assessment for Individuals. This is used to help individuals figure out what their chances are of being the next accident statistic. Individuals rate themselves by answering each question honestly and totaling the points to learn where they can reduce their personal risk level.
- e. Appendix E has procedures for integrating environmental related risk into the risk management process. More specific guidance can be found in FM 3-100.4, Environmental Considerations In Military Operations, Chapter 2.
- 9. Risk Assessment Codes. Force Protection requires that each leader and soldier knows and uses the five steps and three rules of risk management. Nothing we do is so important that we can afford to accept unnecessary risks or a mission that is impossible to accomplish.
- a. Identify each task and the hazards associated with that task. Go to the Risk Assessment Code Matrix appendix F. At the matrix, identify what the severity effect of the hazards is for that task in the left column. Identify the Hazard Probability in the top row. The intersection of the Severity column and Probability row will be the initial risk to be annotated on the risk assessment worksheet.
- b. Standard definitions to assist in determining the severity and hazard probability.
 - (1) RISK LEVELS.
- (a) EXTREMELY HIGH-RISK Loss of ability to accomplish mission if hazards occur during mission.
- (b) HIGH-RISK Significant degradation of mission capabilities in terms of the required mission standard, inability to complete the mission to standard if hazards occur during the mission.
 - (c) MODERATE-RISK Expected degraded mission

- capabilities in terms of required mission standards will have a reduced mission capability if hazards occur during mission.
- (d) LOW-RISK Expected losses have little or no impact on accomplishing the mission.
 - (2) SEVERITY.
- (a) CATASTROPHIC Loss of ability to accomplish the mission or mission failure. Death or permanent total disability, loss of mission critical system or equipment. Major property damage.
- (b) CRITICAL Significantly degraded mission capability or unit readiness. Permanent partial disability, temporary total disability in excess of three months. Extensive damage to equipment or systems. Significant damage to property or the environment.
- (c) MARGINAL Degraded mission capability or unit readiness. Minor damage to equipment or systems, property, or the environment. Lost day due to injury or illness not exceeding three months.
- (d) NEGLIGIBLE Little or no adverse impact on mission capability. First aid or minor medical treatment. Slight equipment or system damage, but functional and serviceable. Little or no property or environmental damage.
 - (3) PROBABILITY.
 - (a) FREQUENT Occurs often, continuously experienced.
 - (b) LIKELY Occurs several times.
 - (c) OCCASIONAL Occurs sporadically.
- (d) SELDOM Remotely possible; could occur at some time.
 - (e) UNLIKELY Can assume it will not occur.
- 10. Risk Acceptance.
- a. Unit staff assists the Commander through the presentation of possible control measures to reduce or eliminate risks.
- b. Once the residual risks have been determined through the application of control measures; the risk decision must be presented at the proper level of command for the final risk decision on mission execution. Mission should be conducted IAW the approved FLW Form 661.
 - c. Approval authority.
 - (1) EXTREMELY HIGH-risk TRADOC Commander.
 - (2) HIGH-risk Commanding General.
- (3) MODERATE-risk Brigade Commanders, Garrison Commander in the grade of O-6 and GS-15.
- (4) LOW-risk Battalion and Company Commanders, MANSCEN Noncommissioned Officers' Academy (NCOA) Commandant, and Garrison Command and MANSCEN Directors and Division Chiefs.
- 11. Instructions for Completion of a Deliberate Risk Management Analysis.
- a. The example at appendix A illustrates the FLW Form 661 which is a matrix style worksheet to be used to conduct an in

depth analysis of each mission. Prepare a worksheet for each phase/sub-phase of the mission.

- b. The blocks a-d are self-explanatory.
- c. List tasks to be accomplished in the mission in block e.
- d. For each of those tasks list the hazard or hazards associated with that task in column f.
- e. For each hazard listed in column f compare probability with severity to identify an initial risk level in column g.
- f. Develop one or more controls for each hazard to reduce its risk. As needed, specify who, what, where, when, and how for each control. Enter controls in column h.
- g. For each hazard, determine the level of risk remaining after controls are implemented (use the risk management matrix in appendix F). Enter the residual risk for each hazard in column i
- h. Determine the overall risk of the mission/task by using the hazard with the highest residual risk. Circle the risk level in row k and obtain approval from the appropriate individual as noted in row k
- 12. Instructions for Completion of the Daily Risk Management Update.
- a. Go through the entire FLW Form 661 and identify any changes in tasks, hazards, risk levels or control measures.
- b. Use additional FLW Forms 661 to note these changes and identify the new residual risk levels.
- c. The highest residual risk level for any of the hazards is the overall risk level for the operation. If this is equal to or less than the previous approved FLW Form 661 execute the mission incorporating the changes into unit plans.
- d. If the risk level is higher approval must be obtained from appropriate grade commander to execute the mission.
- 13. Instructions for the Individual Risk Assessment for Leaders.
- a. List the names of each person for whom you are the first-line supervisor. Answer and assign points as indicated for each person you rate.
 - b. Answer the questions on the worksheet for each individual.

- c. Total each person's points and determine his or her accident risk based on the matrix at bottom of form.
- 14. Instructions for the Individual Risk Management for Individuals. Simply answer the questions about yourself and assign points as directed.

15. Exceptions.

- a. Policy and matrix for SSRA are in accordance with AR 385-16, System Safety Engineering and Management, TRADOC Regulation 385-2, TRADOC Safety Program, and MIL-STD 882C.
- Bisk Assessment Codes for Director of Public Works work orders (assigned by the MANSCEN Safety Office) will be in accordance with AR 385-10, The Army Safety Program.

16. Risk Management Training Programs

- a. The MANSCEN Safety Office will provide instruction to specific courses within the three schools under MANSCEN through the Directorate of Common Leader Training for all officer and warrant officer courses.
- b. The Pre-Command Course will be a one-hour class directed at selected battalion and brigade commanders and will include a scenario review.
- c. Officer Basic and Advance Courses will be a two-hour class with a hands on exercise conducted in the second hour of instruction with following-on training conducted by cadre during actual field training exercises.
- d. A student of the course using an approved training support package will teach Noncommissioned Officer Basic and Advance Courses and the Drill Sergeant School. This is recommended to be a two-hour course with the second hour being a hands-on exercise with follow-on training conducted by cadre or students during actual field training exercises or events.
- e. A student of the course using an approved training support package will teach primary Leadership Development Course. This is recommended to be a two-hour course with the second hour being a hands-on exercise with follow-on training conducted by cadre or students during actual field training exercises or events.
- f. Risk Management will be used in all field training. The risk management process will be integrated into the MDMP as outlined in appendix G.

Risk Management Worksheet (for deliberate and daily risk management)

A. Mission or Task	B. Date/Time Group	C. Date Prepared
Two vehicle convoy	Begin: 0800, 12-28-98 End: 1130, 12-22-98	12-01-98

D. Prepared By: (Rank, Name)

E. Task	F. Hazards	G. Initial Risk	H. Control Measures	I. Residual Risk	J. How to Implement Controls
Conduct PMCS on all vehicles.	Electrical shock Falls from vehicles	MOD MOD	Remove all jewelry. Use three points of contact.	LOW LOW	Squad leaders conduct initial
	POL Spills	MOD	Use spill kits and drip pans	LOW	checks of soldiers.
Brief drivers and provide strip maps.	None	None	None	None	None
Form convoy.	Backing into an object or person.	MOD	Use ground guides.	MOD	Squad leaders enforce use of Ground Guides.
Load equipment into trucks.	Back strain.	MOD	Use multiple soldiers to lift heavy objects.	LOW	Squad leaders enforce use proper lifting techniques.
Road Guards block traffic as convoy departs motor pool.	Back strain.	MOD	Use reflective vests and train guards on their duties.	LOW	Assistant Platoon Sergeant provide leadership to guards.
Drive at 30 MPH through range roads on predetermined route.	Drive off road Struck in rear of vehicle by another vehicle Struck by on-coming vehicle	MOD MOD MOD	Use accident avoidance techniques.	LOW	Assistant driver support driver and warn of hazards and unsafe driving
Return to motor pool via predetermined route.	Drive off road Struck in rear of vehicle by another vehicle Struck by on-coming vehicle	MOD MOD MOD	Use accident avoidance techniques.	LOW LOW LOW	Assistant driver support driver and warn of hazards and unsafe driving

Low Battalion or Company Commander Approves Moderate Brigade Commander Approves High Installation Commander Approves Extremely High TRADOC Commander Approves

- M. Daily review of risk management worksheets conducted by:
 - O. Approval (only if review is higher level of risk than original risk):

N. Overall Risk level after daily review (circle one):

Low Battalion or Company Commander Approves Moderate Brigade Commander Approves High Installation Commander Approves Extremely High TRADOC Commander Approves

Risk Management Worksheet (for deliberate and daily risk management)

A. Mission or Task B. Date/Time Group C. Date Prepared						
			B. Date/Time Group			
Two vehicle conv	OV	Begin: 0800, 12-28-98			12-01-98	
D. Prepared By: (Rank, Name)			2-22-98			
D. Prepared By: (Rank, Na SFC Wilson, Platoon Serge						
E. Task	F. Hazards	G. Initial Risk	H. Control Measures	I. Residual Risk	J. How to Implement Controls	
Conduct PMCS on all vehicles.	Electrical shock Falls from vehicles POL Spills	MOD MOD MOD	Remove all jewelry. Use three points of contact. Use spill kits and drip pans	LOW LOW LOW	Squad leaders conduct initial checks of soldiers.	
Brief drivers and provide strip maps.	None	None	None	None	None	
Form convoy.	Backing into an object or person.	MOD	Use ground guides.	MOD	Squad leaders enforce use of Ground Guides.	
Load equipment into trucks.	Back strain.	MOD	Use multiple soldiers to lift heavy objects.	LOW	Squad leaders enforce use proper lifting techniques.	
Road Guards block traffic as convoy departs motor pool.	Back strain.	MOD	Use reflective vests and train guards on their duties.	LOW	Assistant Platoon Sergeant provide leadership to guards.	
Drive at 30 MPH through range roads on predetermined route.	Drive off road Struck in rear of vehicle by another vehicle Struck by on-coming vehicle	MOD MOD MOD	Use accident avoidance techniques.	LOW	Assistant driver support driver and warn of hazards and unsafe driving.	
Return to motor pool via predetermined route.	Drive off road Struck in rear of vehicle by another vehicle Struck by on-coming vehicle	MOD MOD MOD	Use accident avoidance techniques.	LOW LOW LOW	Assistant driver support driver and warn of hazards and unsafe driving.	
Daily added 12-21-98	7;					
Drive during rain.	Slide off muddy road. Skid while braking. Reduced visibility. Struck in rear of vehicle or by on-coming vehicle who is sliding.	MOD MOD MOD MOD	Reduce speed, increase following distances, use defroster, use defensive driving techniques.	LOW	Assistant driver support driver and warn of hazards and unsafe driving.	
K. Overall Risk level after controls are implemented (eirele one): Low Battalion or Company Commander Approves Moderate Brigade Commander Approves High Installation Commander Approves Extremely High TRADOC Commander Approves						
M. Daily review of risk management worksheets conducted by: MSG Bill Williams O. Approval (only if review is higher level of risk than original risk):						

Low Battalion or Company Commander Approvés Moderate Brigade Commander Approves High Installation Commander Approves Extremely High TRADOC Commander Approves

Appendix C NEXT ACCIDENT ASSESSMENT OF COMMANDERS AND LEADERS

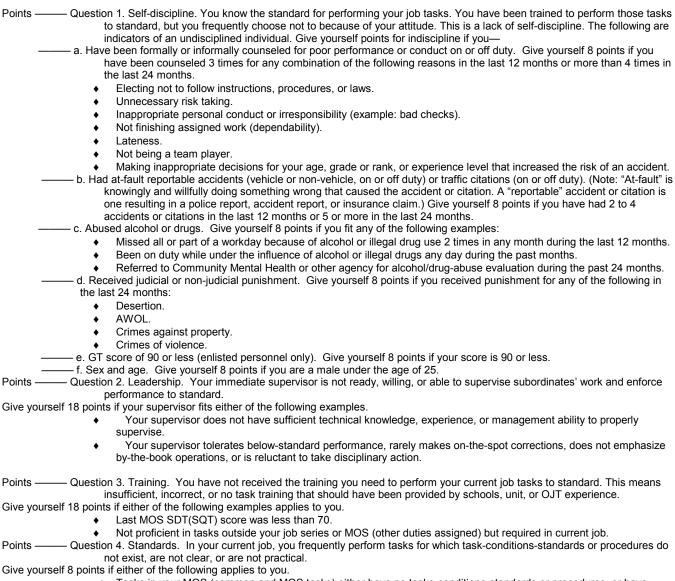
Accident Risk Assessm	भारि	Nam	ė
of Parsonnal Bated			
by Commanders/Leade	FS		
Risk Factors	Points		
 Self-discipline (dependability): Soldier knows and is trained to standard, but doesn't follow standard. 			
a. Caurseled for poor performance (3 times in last 12 months, or more than 4 times in last 24 months).	8		
 b. Had at-fault accidents or citations (2-4 in last 12 months or 5 or more in last 24 months). 	8		
c. Abused alcahal/drugs (in last 12 manths) or referred to community mental health (in last 24 manths).	8		
d. Had judicial/nonjudicial punishment (in last 24 months).	8		\top
e. GT scare of 90 or less (enlisted only).	8		
f. Male under age 25.	8		
Leadership (enforcement of standard): Leaders not ready, willing, or able to supervise and enforce performance to standard.			
a. Insufficient knowledge/experience (each subardinate leader who fits this example).	6		
 b. Talerates below-standard performance leach subordinate leader who fits this example). 	12		
3. Training (job skills and knowledge): Soldiers lack training to perform tasks to standard.			
a. MOS SDT (SQT) scare less than 70.	9		\top
 b. Not proficient in assigned tasks outside MOS (has not received OJT, school, unit, or task training). 	9		
4. Standards: Soldiers performing task for which task-condition-standard or procedures—			
a. Da nat exist Jexample: two vehicles callide head-on an test track because there is no standard on track direction).	4		
 b. Are not clear ar practical lexample: TM shows soldier changing 195-pound tire by himself). 	4		
5. Support: Soldiers not receiving support needed to perform task to standard.			
a. Persannel (nat full crew, wrang MOS, nat trained to standard).	2		
b. Equipment (TA-50, weapons, transportation, safety).	2		1
c. Supplies (amma, fuel, faad, water, parts, clathing, publications).	2		
d. Services/facilities (maintenance, medical, personal services, starage).	2		
Points 0-20 21-30 31-40 41+	Paints		

Appendix D NEXT ACCIDENT ASSESSMENT FOR INDIVIDUALS

Note to leaders: This assessment is designed to provide individual soldiers with immediate feedback on the risk factors they possess. The results are for their own use only. However, it's a good tool you can use to get soldiers to take responsibility for their own safety.

Instructions

Answer the questions about yourself and assign points as directed.



- Tasks in your MOS (common and MOS tasks) either have no tasks-conditions-standards or procedures, or have tasks-conditions-standards or procedures that are not clear or are not practical.
- Tasks outside your MOS or job series (other duties) assigned to you either have no tasks-conditions-standards or procedures, or have tasks-conditions-standards or procedures that are not clear or are not practical.
- Points——— Question 5. Support. You frequently do not receive the support you need to perform your job tasks to standard. Shortcomings include type, capability, and amount or condition of support needed.

Give yourself 8 points if inadequate support was responsible for below-standard task performance 2 times in any month during the past 12 months. Examples:

- Personnel (not full crew, wrong MOS, not trained to standard, etc.).
- Equipment (TA-50, weapons, transportation, safety, etc.).
- Supplies (ammo, fuel, food, water, parts, clothing, publications, etc.).
- Services/facilities (maintenance, medical, personal services, storage, etc.).

Scoring

Add up your points for all questions. Find where your score fits on the scale below to determine your risk of causing the next accident.

---- Total Points

Points	0-20	21-30	31-40	41+
Risk	Low	Medium	High	Extremely High

How to use it

You now know your risk of making a mistake that will cause the next accident and what the reasons will be. You can reduce your risk by taking action to correct or control those reasons/faults that apply to you. You can control or fix some of them yourself; for others, you may need chain-of-command help. In the space below, identify at least one action you will take to reduce your accident risk. Also identify at least one action you need the chain-of-command to take to reduce your accident risk (this is the only information you need to share with the chain of command).

Actions I will take to reduce my accident risk:	
Chain of Command actions needed to reduce my	accident risk:
Chain of Command actions needed to reduce my	accident risk:
Chain of Command actions needed to reduce my	accident risk:
Chain of Command actions needed to reduce my	accident risk:
Chain of Command actions needed to reduce my	accident risk:
Chain of Command actions needed to reduce my	accident risk:
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Chain of Command actions needed to reduce my	accident risk:

Appendix E ENVIRONMENTAL RISK MANAGEMENT OVERVIEW

PURPOSE: This appendix illustrates how the risk assessment process is used to assess and reduce environmental related-risk while conducting operations. Although all risk cannot be eliminated, leaders must identify hazards that may negatively impact the environment and implement controls to reduce the overall risk. Remember, assessing environmental-related risk is only a part of the overall risk managment process.

OVERVIEW

Risk decisions are commanders' business. Such decisions are normally based on the next higher commander's guidance on how much risk he is willing to accept and delegate for the mission. Risk decisions should be made at the lowest possible level, except in extreme circumstances.

Both leaders and staff manage risk. Staff members continuously look for hazards associated with their areas of expertise. They then recommend controls to reduce risks. Hazards and the resulting risks may vary as circumstances change and experience is gained. Leaders and individual soldiers become the assessors for ever-changing hazards such as those associated with the environment (weather; visibility; contaminated air, water, and soil), equipment readiness, individual and unit experience, and fatigue. Leaders should advise the chain of command on risks and risk reduction measures.

THE RISK MANAGEMENT PROCESS

Risk management is the process of identifying, assessing, and controlling risk that arises from operational factors and balancing risk with mission benefits. This description integrates risk management into the military decision-making process (MDMP). FM 100-14 outlines the risk management process and provides the framework for making risk management a routine part of planning, preparing, and executing operational missions and everyday tasks. Assessing environmental-related risks is part of the total risk management process. The five steps in the risk management process are as follows:

- Step 1. Identify environmental hazards.
- Step 2. Assess environmental hazards to determine the risk.
- Step 3. Develop controls and make risk decisions.
- Step 4. Implement the controls.
- Step 5. Supervise and evaluate.

Knowledge of environmental factors is key to planning and decision-making. With this knowledge, leaders quantify risks, detect problem areas, reduce risk of injury or death, reduce property damage, and ensure compliance with environmental laws and regulations. Leaders should conduct risk assessments using the risk management worksheet before conducting any training, operations, or logistical activities.

STEP 1. IDENTIFY ENVIRONMENTAL HAZARDS

Leaders identify environmental hazards during mission analysis. FM 100-14 defines a hazard as any actual or potential condition that can cause injury, illness, or death of personnel; damage to or loss of equipment or property; or mission degradation. Environmental hazards include all activities that may pollute, create negative noise-related effects, degrade archeological/cultural resources, or negatively affect threatened or endangered species' habitat.

STEP 2. ASSESS ENVIRONMENTAL HAZARDS TO DETERMINE THE RISK

Risk assessment is a three-stage process used to determine the risk of potential harm to the environment. A leader considers two factors, probability and severity. Probability is how often an environmental hazard is likely to occur. Severity is the effect that a hazard will have on the environment. Probability and severity are estimates that require an individual's judgment and a working knowledge of the risk management process and its terminology.

Stage 1

A leader assesses the probability of each hazard. For each hazard he identified, he would make the following determinations:

- Based on experience he determines that a vehicle accident or breakdown causing a fuel and/or hazardous material (HM) spill would seldom happen.
- Based on his judgment he determines that spills during refueling stops can occasionally be expected.
- Based on his working knowledge he determines that maneuver damage from off-road movement could happen frequently.

Stage 2

A leader assesses the severity of each hazard he identified. Definitions for the degrees of severity are not absolutes; they are more conditional and are mission, enemy, terrain and weather, troops - time available, civilians (METT-TC) related. A leader must use his experience, judgment, lessons learned, and subject-matter experts to help determine the degrees of severity.

Leaders make make the following determinations:

• Based on experience he determines that a vehicle accident or breakdown causing a fuel and/or HM spill could be significant and cause major damage to the environment. The severity would be **critical**.

- Based on his judgment he determines that spills during refueling stops could cause minor damage to the environment. The severity would be marginal.
- Based on his working knowledge he determines that maneuver damage from off-road movement would cause little or no environmental damage. The severity would be **negligible**.

A leader uses the determinations from Stage 1 with the severity caused by an occurrence in Stage 2 to determine the overall risk of each hazard.

Stage 3

First a leader determines the risk level of each hazard. Then, using the defined degrees of probability and severity from above and the risk assessment matrix he determines the overall environmental-related risk level.

For the hazards identified a leader would make the following determinations and enter the assessments in column G of the risk management worksheet.

- Vehicle accidents and breakdowns causing fuel and/or HM spills would **seldom** happen, but if they did, the severity could be **critical**. Based on this information (severity row, critical, and probability column, seldom), he determines the overall assessment to be **moderate**.
- Spills during refueling stops will happen **occasionally**; when they do, the severity will **marginal**. Based on this information (severity row, marginal, and probability column, occasional), he determines the overall assessment to be **moderate**.
- Maneuver damage from vehicle off-road movement will happen **frequently**. The damage caused by this movement will be **negligible**. Based on this information (severity row, negligible, and probability column, frequent), he determines the overall assessment to be **moderate**.

STEP 3. DEVELOP CONTROLS AND MAKE A DECISION

Controls eliminate or reduce the probability or severity of each hazard, thereby lowering the overall risk.

Many environmental risk controls are simply extensions of good management, housekeeping, operations security (OPSEC), and leadership practices. Risk-reduction controls can include conducting rehearsals, changing locations, establishing procedures, and increasing supervision. Using the information a leader fills in column H of the risk management worksheet.

Once all practicable risk control measures are in place, some risk will always remain. Based on the controls that he develops, a leader reassesses the hazards. Once he determines the residual risk for each hazard, he fills in column I on the risk management worksheet. Based upon the highest residual risk determination in column I this becomes the overall mission/task risk and circled in block K. The residual risk requires the commander's attention. The commander decides whether or not to accept the risk. The commander may direct his subordinates to consider additional controls or a change in the courses of actions (COA).

STEP 4. IMPLEMENT CONTROLS

Implementing the controls requires informing all subordinates of the risk control measures. To do this, a leader defines the controls by filling in column J of the risk management worksheet. He states how each control will be implemented and assigns responsibility for implementing the controls. For example, if the control measures for a fuel-spill hazard are to ensure that operators are properly trained to dispense fuel and ensure that appropriate spill equipment is available, then he must ensure that these controls are in place before an operation. See table 1.

A leader must anticipate environmental requirements and incorporate them as part of his long-, short-, and near-term planning. The key to success is identifying the who, what, where, when, and how aspects of each control. Enter this information on the worksheet.

STEP 5. SUPERVISE AND EVALUATE

Leaders continuously monitor controls throughout an operation to ensure their effectiveness and to modify them as required. Leaders:

- · Makes on-the-spot corrections and evaluates individual and collective performances.
- Holds those in charge accountable.
- Requires that all tasks be performed to applicable environmental standards.
- Ensures that the AAR process includes an evaluation of environmental-related hazards, controls, soldiers' performance, and leaders' supervision.
- Ensures that environmental lessons learned are developed for use in future operations.

SUMMARY

The ability of leaders to identify hazards is key. One reality of today's missions is that the aspect of a hazard can change rapidly. Things of little risk initially can quickly become major threats due to unforeseen natural or man-made events. Leaders should be aware of this possibility. Complacency to the fact existing controls may not continue to control hazards in rapidly changing situations should be viewed as a hazard itself.

Completing the risk assessment alone, but failing to identify effective controls, usually results in a go/no-go decision based on the initial risk. If risk assessment does not accurately identify the hazards and determine the level of residual risk, the leader is likely to make his risk decision based upon incomplete or inaccurate information. If the risk assessment places missions in routine, low risk category, the commander may not be informed of a risk decision resulting in an accepted risk level that could imperil his or his higher commanders' intent or other organizations.

The risk management process is intended to provide reasonable controls to support mission accomplishment.

Control Type	Environmental-Related Examples				
Educational	Conducting unit environmental-awareness training.				
Laddational	Conducting an environmental briefing before deployment.				
	Performing tasks to environmental standards.				
	Reviewing environmental considerations in AARs.				
	Reading unit's environmental SOPs and policies.				
	Conducting spill-prevention training.				
	Publishing an environmental annex/appendix to the OPORD/OPLAN.				
Physical	Providing spill-prevention equipment.				
i ilysicai	Establishing a field trash-collection point and procedures.				
	Establishing a field satellite-accumulation site and procedures.				
	Policing field locations.				
	Practicing good field sanitation.				
	Filling in fighting positions.				
	Posting signs and warnings for off-limit areas.				
Avoidance	Maneuvering around historical/cultural sites.				
Avoidance	Establishing refueling and maintenance areas away from wetlands and drainage areas.				
	Crossing streams at approved sites.				
	Preventing pollution.				
	Limiting noise in endangered and threatened species' habitats.				
	Avoiding refueling over water sources.				
	Curtailing live vegetation use for camouflage.				

Table 1. Environmental-related controls

Appendix F RISK MANAGEMENT CODE MATRIX

	HAZARD PROBABILITY					
SEVERITY	FREQUENT A	LIKELY B	OCCASIONAL C	SELDOM D	UNLIKELY E	
CATASTROPHIC I	EXTREMELY HIGH	EXTREMELY HIGH	HIGH	HIGH	MODERATE	
CRITICAL II	EXTREMELY HIGH	HIGH	HIGH	MODERATE	LOW	
MODERATE III	HIGH	MODERATE	MODERATE	LOW	LOW	
NEGLIGIBLE IV	MODERATE	LOW	LOW	LOW	LOW	

Military Decision Making Process

Risk Management Steps

	KISK Management Steps						
	Identify Hazards	Assess Hazards	Develop Controls & Make Risk Decisions	Implement Controls	Supervise & Evaluate		
Receipt of Mission	X						
Mission Analysis	X	X					
COA Development	X	X	X				
COA Analysis	X	X	X				
COA Comparison			X				
COA Approval			X				
Orders Production				X			
Preparation				X	X		
Execution				X	X		

M

D

M

P

Glossary

AAR

After Action Report

AR

Army regulation

AWOL

absent without leave

CDTF

Chemical Defense Training Facility

COA

course of action

ECO

Environmental Compliance Officer

⊢LW

Fort Leonard Wood

 FM

field manual

GT

general technical

HM

hazardous material

IAW

in accordance with

ID identify

JROTC

Junior Reserve Officer Training Corps

MANSCEN

United States Army Maneuver Support Center and

Fort Leonard Wood

MANSCEN & FLW

United States Army Maneuver Support Center and

Fort Leonard Wood

MDMP

military decision making process

METT-TO

mission, enemy, terrain and weather, troops - time available,

civilians

MIL military

MOD moderate

MOS

military occupational specialty

MPH

miles per hour

NCO

noncommissioned officer

NCOA

Noncommissioned Officers Academy

OJT

on-the-job training

OPLAN

operation plan

OPORD

operation order

OPSEC

operations security

Pam

pamphlet

PMCS

Preventive Maintenance Checks and Service

POL

petroleum, oil and lubricants

Reg

regulation

ROTC

Reserve Officer Training Corps

SAT

Systems Approach to Training

SDT

Skill Development Test

SOF

standing operating procedures

SQT

Skill Qualification Test

SSRA

System Safety Risk Assessments

STD standard

Staridar

TΑ

Training Area

ΤN

technical manual

TRADOC

United States Army Training and Doctrine Command